

### **Abstract**

A system for wireless communication utilizing a first wireless band and a second wireless band. The system including a first dual-band wireless transceiver and a smart antenna, the first device, using the smart antenna, uni-directionally transmitting payload data exclusively on the first band without having to reserve the first band prior to transmission and at least one second wireless device including a second dual-band wireless transceiver, the second device acknowledging reception of the payload data using at least one of the first and second bands by omni-directionally transmitting acknowledgment data.